



# FlashPoint<sup>4xl</sup> Lite

## Low-cost PCI and AGP frame grabbers with integrated display

FlashPoint 4xl Lite is a low-cost, high performance frame grabber with integrated VGA display. Video can be acquired from up to three composite or monochrome cameras and displayed at non-destructive overlay resolutions up to 1280x1024. Available in either AGP 4X or PCI bus formats, FlashPoint 4xl Lite is perfect for cost-sensitive OEM applications.

### FlashPoint 4xl Features



- High-performance PCI 2.2 or AGP 4X frame grabber
- Integrated 143 MHz 128-bit 3D graphics accelerator
- 16 MB on-board display memory
- Up to 3 composite/monochrome, or 1 S-Video input in NTSC or PAL
- True color display resolution up to 1600x1200
- Non-destructive color key overlay
- High-quality scaling of video overlay up to 1280x1024
- Hardware pan and zoom
- Programmable offset, gain, hue, and saturation of video levels
- Optically isolated output trigger, strobe interface
- General purpose TTL input and output triggers
- Chroma key for live video graphics underlay
- Available Software Developers Kit
- Support for Windows<sup>®</sup> 9x, ME, NT 4.0, 2000, and XP operating systems
- Support for Linux<sup>®</sup> operating system

### Applications

- Machine Vision
- Inspection and process control
- Image analysis
- Scientific imaging
- Microscopy
- Medical imaging
- Fingerprint biometrics
- Law enforcement
- Security and access control
- Traffic control

## Integrated 3D Graphics Accelerator

FlashPoint 4xl Lite utilizes a 143 MHz, 128-bit 3D graphics accelerator with 16 MB of local SGRAM for image capture and display. The newly designed PC host bus interface works with either 3.3V or 5V tolerant PCI slots, and is also available in AGP 4X format. Display resolutions up to 1600x1200 with refresh rates up to 100 Hz in 8, 16, and 32 bit/pixel are supported.

## Non-Destructive Overlay Support

FlashPoint 4xl Lite supports non-destructive overlay of text and graphics on live video. This enables applications that require graphic overlays to be displayed on live video while the underlying video is cleanly captured or displayed.

## High-Quality Video Capture

FlashPoint 4xl Lite provides for high-quality capture from up to 3 composite video or monochrome inputs or 1 S-Video input in either NTSC or PAL formats. Video is displayed in a fully resizable window with smooth interpolated scaling capabilities for arbitrary overlay sizes up to 1280x1024.

## Software Developers Kit

As with all Integral Technologies frame grabber products, a comprehensive software developers kit is available that provides access to the features of the FlashPoint 4xl Lite hardware. The SDK includes DLLs for Microsoft Windows and Linux operating systems. Source code samples are included in both Visual C and Visual BASIC to provide insight to various hardware functions of the FlashPoint 4xl Lite. Since all of the products in the FlashPoint 4xl family use the same SDK, users can easily switch between products. FlashPoint 4xl is also compatible with the FlashPoint 3Dx, so upgrading is simple. As always, Integral Technologies provides experienced and professional technical support at no cost to developers using the FlashPoint 4xl product family.

## Integral Technologies Imaging and Vision Library

Integral Technologies IVL is a high-level programming library that provides an extensive set of optimized high-performance image processing and analysis functions in a conventional C-callable interface. IVL is compatible with all Integral Technologies' frame grabber products for Windows 98, ME, NT 4.0, 2000, and XP operating systems.



## Specifications

### Bus Format

- AGP 1x, 2x, and 4x compliant
- PCI 2.2 compliant, 5V and 3.3V universal slot

### Analog Video Inputs

- Up to 3 composite/monochrome video inputs (with 3655 cable)
- One S-Video color input

### Video Decoder/Digitizer

- NTSC & PAL
- Square pixel digitizing resolutions for NTSC (12.27 MHz at 640x480) and PAL (14.75 MHz at 768x576)
- Progressive scan camera support
- Software programmable digital control offset, gain, hue, and saturation
- EEPROM for storing configuration and calibration settings

### Video Pixel Format

- YUV 4:2:2 color

### Video Scaling Processor

- High-quality still frame image capture
- Smooth interpolated scaling
- Support for hardware pan and zoom up to 4 to 1

### I/O Control

- Optically isolated output trigger for flash interface
- 1 general purpose TTL input trigger
- 1 general purpose TTL output trigger

### Software

- Windows 98, ME, NT 4.0, 2000, and XP drivers
- Windows 98, ME, NT 4.0, 2000, and XP DLLs
- Linux Kernel 2.4 Driver
- Windows MCI and Video for Windows drivers
- DirectDraw support
- TWAIN driver
- Sample applications with source code
- Windows-based FPG video capture application

### Video Input Cable

- Composite, S-Video and RS-170 video input cable. Custom cables available upon request.

### Part Number

- PCI - #3150
- AGP - #3153